



# Agenda

- **About SCTGEN**
- **PDS Generation**
- **PDS with a Set Error**
- **Script Loading and Modification**
- **Creation of SCTGEN Data from CCSDS Packets**
- **Command Line Execution of Scripts**
- **Interpretation of SCTGEN Script Run Error Messages**
- **Summary**



# About SCTGEN

- **SCTGEN is a program that creates CADUs, PDS/EDS, RBP, EDU and TC products**
- **Tiger is the name of the libraries that are used by SCTGEN. It uses an ASCII text script file to define a scenario**
- **When looking at a script, there are streams. A stream is a component that makes or handles a unit (packets, frames, CLTU, etc.)**
  - **Packet streams flow into mux streams, which flows into PDS streams, the PDS stream flow into an output module.**



## About SCTGEN (cont.)

- **SCTGEN is designed to run on SUN and HP UNIX platforms, and SGI platform.**
- **There are two parts to SCTGEN:**
  - **SCTGEN GUI - controlled by TCL and TK software, used to create ASCII script file**
  - **SCTGEN Application - uses the ASCII script file to create the output products**
- **Generation of all output products follow procedure similar to PDS generation**
- **To start SCTGEN type *run\_sctgui***



# PDS Generation

- Select the *PDS* option and click on the *Scenario* pull-down menu in the SCTGEN GUI menu panel
  - Click on the New menu item
  - The Input Window panel will be displayed. Select *OK*.
  - The Scenario Definition Menu Panel will be displayed
- Enter:
  - 257 in the APID field
- Click on the addAPID button
  - Information is added to screen
- Repeat for APID 259



## PDS Generation (cont'd)

- **Select *View***
  - The PDS Stream panel will be displayed
- **Select the *Output* button**
  - The *PDS Output Definition* panel will be displayed



# **PDS Generation (Cont'd)**

- **Completing the PDS Output Definition menu panel:**
  - Enter required information on the PDS Output Definition menu panel
    - » Enter the Creation Date
    - » Enter the PB5 time (initializes ESH date and time of first packet in PDS)
    - » Enter the SC Time field (SCS Start and Stop times)
- **Select OK and Close to exit Output Definition panel**



## **PDS Generation (cont'd)**

- **Select the vcNNmux button**
  - The Packet Multiplexer for vcNN Menu Panel is displayed
- **Completing the Packet Multiplexer for VCNN menu panel**
  - Specify Mux by Range or
  - Specify Mux by Pattern
  - Specify Default Mux Pattern
- **Select *Close* to exit the Packet Multiplexer for VCNN Menu Panel.**



# **PDS Generation (Cont'd)**

- **Select the ap0257 button**
  - The PDS Packet Definition Menu Panel will be displayed
- **Completing the PDS Packet Definition menu panel:**
  - Enter Max number of packets
  - Enter the required data in the Data Region Definition menu panel
  - Enter the Packet Secondary Header information
  - Enter the Packet Length
  - Discussion of other fields on the Packet Definition Menu Panel
  - Select OK and Close to exit the Packet Definition menu panel





## **PDS Generation (Cont'd)**

- **The PDS Stream Menu Panel is displayed**
- **Select the ap0259 button**
  - The PDS Packet Definition Menu Panel will be displayed
- **Complete the PDS Packet Definition Menu Panel**
  - Follow the same steps used when completing the PDS Packet Definition Menu Panel for APID 257



# PDS Generation - Script Generation

- **Select the Script Button from the PDS Stream panel**
  - The PDS script will be displayed
- **You may Edit, Save or Run the script**
- **To edit the script:**
  - Use the mouse button to highlight script text to be modified, or use the standard cursor movement, backspace key, etc.
- **Save the script:**
  - Enter directory and filename (*test1*) in the appropriate fields and press the save button. The Script will be saved as *test1.script*



# PDS Generation - Script Generation (Cont'd)

- **To Run the Script:**
  - Select the Run option
  - The SCTGEN Main Menu panel will display the following:
    - » Run script
    - » sctgen v1.4 <t14>
    - » Construction Record:
    - » P04202570420259AAAAAAAAA9710050403000.PDS
    - » PDS:  
P04202570420259AAAAAAAAA9710050403001.PDS
    - » Run completed
  - All messages are preceded by a time stamp
- **Error messages will be displayed before the *Run completed* message**